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<div>Division of Forensic Science</div> <div>BLOODSTAIN PROCEDURES MANUAL</div>	Amendment Designator:
	Effective Date: 15-October-2004
<div>2 SIZE DETERMINATION AND POSSIBLE INFORMATION</div> <div>2.1 Stain Size Determination</div> <div>2.1.1 Circular – Utilizing a 7x loupe or similar equipment with a mm scale attachment measure the diameter of the stain.</div> <div>2.1.2 Elliptical – Using the same instrument mentioned above measure the length (from the smooth side of the stain to the widest point then double and width (at the widest point).</div> <div>2.2 Large Stains</div> <div>2.2.1 Stains greater than 6mm in diameter are considered large stains.</div> <div>2.2.2 Possible information obtained:</div> <div>2.2.2.1 Circular stains may indicate a passive falling/dripping stain.</div> <div>2.2.2.2 Stains which have appreciable volume independent of a pattern and have a “rundown” or flowing effect could be considered passive gravitational flow.</div> <div>2.2.2.3 A large accumulation (pooling) of blood (greater than the volume of a drop) could be considered a passive flowing. This stain could be measured from its width and length. When the pattern is irregular, it may require several width &amp; length measurements. This will produce a range of stain sizes, which will better describe the perimeter of the stain.</div> <div>2.3 Small to Medium Stains</div> <div>2.3.1 Stains less than 6mm are considered a medium to small stain.</div> <div>2.3.2 Possible information obtained:</div> <div>2.3.2.1 Stains may be considered “active” in that the mechanism to create them had to be sufficient to overcome the surface tension and break the blood into pieces.</div> <div>2.3.2.2 The smaller the stains, the greater the force or activity behind the mechanism.</div> <div>2.3.2.2.1 Rouging is a term used when stains are so small and concentrated that they overlap and form the appearance of a misting or atomizing. This would indicate very great force in the formation mechanism.</div> <div>2.4 The Role of Distance in Determining Stain Size</div> <div>2.4.1 The smaller the drop size, the less distance it will travel. Blood that creates stains which are very small (fine and rouging) does not have the mass to travel longer distances. Therefore smaller drops will fall to the ground if there is no target close to the active mechanism.</div> <div>2.4.2 Drops that are larger (greater mass) can travel greater distances.</div> <div>2.4.3 Since the observer will be able to determine whether or not the stains are very small (e.g., rouging) or somewhat large, this may provide information about the approximate distance (e.g., very close vs. a greater distance) the blood traveled.</div>	

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<div> <div>2.5 The Effect of the Originating Surface on the Size of the Drop Produced (Passive Falling/Dripping Blood)</div> <div> <div>2.5.1 When the surface of origin is large (e.g., the broad side of a board), the drop formed usually is larger.</div> <div>2.5.2 When the surface is small like the tip of a knife, the drop size is smaller.</div> <div>2.5.3 The distance that a drop falls until it reaches terminal velocity will affect the size of the stain created. The longer the distance the larger the stain until terminal velocity is reached, after which the stain size will remain constant.</div> </div> <div> <div>2.6 Surface on Which the Stain is Formed</div> <div> <div>2.6.1 The drop's surface tension may be broken by the rough texture of the surface. There may be satellites cast off, thus making the parent stain somewhat smaller.</div> <div>2.6.2 Fabric may cause blood to absorb into the surface creating the appearance of a larger stain.</div> </div> <div>◆End</div> </div> </div>	